

**Amendments to the Claims:**

Claims 1-57 **(Cancelled)**

58. **(New)** A tactile pin holding apparatus comprising:

a holding member having a tactile surface and a first number of holes, and being provided for supporting the first number of tactile pins in the holes, respectively, to be movable up-and-down therein relative to the tactile surface for displaying characters and/or graphics, the tactile pins being arranged in multi-row multi-column and in a second number of groups at the tactile surface; and

elastic members, in the second number, respectively corresponding to the second number of groups of tactile pins and being arranged at the holding member for pressing and holding the tactile pins with the holding member in a manner that each of the tactile pins in each of the groups of tactile pins is pressed by the elastic member corresponding thereto can thereby be held at a desired height relative to the tactile surface, and that the each of the tactile pins is movable up-and-down when a force exceeding a given value is applied to the each of the tactile pins in up-and-down direction, characterized in that the second number is smaller than the first number, each elastic member presses simultaneously against the plurality of tactile pins in the group associated with the respective elastic member, and that each of the tactile pins is pressed at a side thereof by the respective elastic member.

59. **(New)** The tactile pin holding apparatus according to claim 58, wherein the second number is the number of rows of tactile pins, and each of the elastic members provided for each of the rows of tactile pins is an elastic ring placed annularly at the holding member for pressing sideways against the tactile pins of the respective row.

60. **(New)** A tactile pin display apparatus, comprising:

a tactile pin holding apparatus as defined in claim 59 and wherein the holding member is a rotational member;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

61. **(New)** The tactile pin display apparatus according to claim 60, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

62. **(New)** The tactile pin display apparatus according to claim 60, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

63. **(New)** The tactile pin display apparatus according to claim 60, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

64. **(New)** The tactile pin display apparatus according to claim 60, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

65. **(New)** The tactile pin display apparatus according to claim 60, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.

66. **(New)** The tactile pin display apparatus according to claim 65, wherein the number of the engagement release members is equal to the number of rows of tactile pins.

67. **(New)** The tactile pin holding apparatus according to claim 58, wherein the second number is equal to half of the number of columns of tactile pins, and each of the elastic members is an elastic rod extending in column direction and being sandwiched between a pair of adjacent columns of tactile pins in a manner that the tactile pins in one column of the pair of columns are pressed and held by one side of the elastic rod, and the tactile pins in the other column are pressed and held by the opposite side of the elastic rod.

68. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 67 and wherein the holding member is a rotational member;  
rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

69. **(New)** The tactile pin display apparatus according to claim 68, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

70. **(New)** The tactile pin display apparatus according to claim 68, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

71. **(New)** The tactile pin display apparatus according to claim 68, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

72. **(New)** The tactile pin display apparatus according to claim 68, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

73. **(New)** The tactile pin display apparatus according to claim 68, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of

the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.

74. **(New)** The tactile pin display apparatus according to claim 73, wherein the number of the engagement release members is equal to the number of rows of tactile pins.

75. **(New)** The tactile pin holding apparatus according to claim 58, wherein the second number is equal to half of the number of tactile pins, and each of the elastic members is an elastic segment sandwiched between a pair of adjacent tactile pins in each row in a manner that one of the pair of tactile pins is pressed and held by one side of the elastic segment, and the other tactile pin is pressed and held by the opposite side of the elastic segment.

76. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 75 and wherein the holding member is a rotational member;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

77. **(New)** The tactile pin display apparatus according to claim 76, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

78. **(New)** The tactile pin display apparatus according to claim 76, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

79. **(New)** The tactile pin display apparatus according to claim 76, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

80. **(New)** The tactile pin display apparatus according to claim 76, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

81. **(New)** The tactile pin display apparatus according to claim 76, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.

82. **(New)** The tactile pin display apparatus according to claim 81, wherein the number of the engagement release members is equal to the number of rows of tactile pins.

83. **(New)** The tactile pin holding apparatus according to claim 58, wherein the each of the tactile pins in the each of the groups of tactile pins has an annular groove for engagement with the elastic member corresponding to the each of the groups of tactile pins.

84. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 83 and wherein the holding member is a rotational member;  
rotation driving means coupled to the rotational member for rotating the rotational member;  
a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;  
actuators provided nearby the rotational member for moving the tactile pins; and  
selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

85. **(New)** The tactile pin display apparatus according to claim 84, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

86. **(New)** The tactile pin display apparatus according to claim 84, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

87. **(New)** The tactile pin display apparatus according to claim 84, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

88. **(New)** The tactile pin display apparatus according to claim 84, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

89. **(New)** The tactile pin display apparatus according to claim 84, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.



90. **(New)** The tactile pin display apparatus according to claim 89, wherein the number of the engagement release members is equal to the number of rows of tactile pins.

91. **(New)** The tactile pin holding apparatus according to claim 58, wherein the holding member is disc-shaped or drum-shaped.

92. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 91 and wherein the holding member is a rotational member;  
rotation driving means coupled to the rotational member for rotating the rotational member;  
a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;  
actuators provided nearby the rotational member for moving the tactile pins; and  
selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

93. **(New)** The tactile pin display apparatus according to claim 92, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

94. **(New)** The tactile pin display apparatus according to claim 92, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

95. **(New)** The tactile pin display apparatus according to claim 92, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

96. **(New)** The tactile pin display apparatus according to claim 92, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

97. **(New)** The tactile pin display apparatus according to claim 92, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.

98. **(New)** The tactile pin display apparatus according to claim 97, wherein the number of the engagement release members is equal to the number of rows of tactile pins.

99. **(New)** The tactile pin holding apparatus according to claim 58, wherein each of the elastic members is a non-metal ring-shaped member, a non-metal rod-shaped member, a non-metal tube-shaped member or a compression coil spring.

100. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 99 and wherein the holding member is a rotational member;  
rotation driving means coupled to the rotational member for rotating the rotational member;  
a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;  
actuators provided nearby the rotational member for moving the tactile pins; and  
selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

101. **(New)** The tactile pin display apparatus according to claim 100, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

102. **(New)** The tactile pin display apparatus according to claim 100, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

103. **(New)** The tactile pin display apparatus according to claim 100, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

104. **(New)** The tactile pin display apparatus according to claim 100, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.

105. **(New)** The tactile pin display apparatus according to claim 100, wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface, and

the tactile pin display apparatus further comprises engagement release members each being brought to contact with each of the tactile pins in each of the holes, during the rotation of the rotational member, for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes, the engagement release members being placed upstream of the pin height reset member in the rotation of the rotational member.

106. **(New)** A tactile pin holding apparatus according to claim 58, wherein wherein each of the holes comprises an engagement portion, and each of the tactile pins in the each of the holes comprises a step portion engageable with the engagement portion of the each of the holes, such that when the step portion of the each of the tactile pins is engaged with the engagement portion of the each of the holes, the each of the tactile pins is held at a desired height relative to the tactile surface.

107. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 106 and wherein the holding member is a rotational member;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

108. **(New)** The tactile pin holding apparatus according to claim 106, further comprising engagement release members each for being coupled to each of the tactile pins for releasing the engagement between the step portion of the each of the tactile pins and the engagement portion of the each of the holes.

109. **(New)** A tactile pin display apparatus, comprising:

a tactile pin holding apparatus as defined in claim 108 and wherein the holding member is a rotational member;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

110. **(New)** A tactile pin display apparatus, comprising:  
a tactile pin holding apparatus as defined in claim 58 and wherein the holding member is a rotational member;  
rotation driving means coupled to the rotational member for rotating the rotational member;  
a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;  
actuators provided nearby the rotational member for moving the tactile pins; and  
selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

111. **(New)** The tactile pin display apparatus according to claim 110, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are placed distantly from each other.

112. **(New)** The tactile pin display apparatus according to claim 110, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

113. **(New)** The tactile pin display apparatus according to claim 110, further comprising an abnormal load detecting means for detecting an abnormal load applied to the rotational member.

114. **(New)** The tactile pin display apparatus according to claim 110, further comprising an indicator portion provided nearby the rotational member for a user to put its finger at for touching the tactile pins.